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field elevation for 15 minutes upon reaching an ETOPS Alternate Airport and then conduct an instrument approach and land.

(3) Fuel to account for APU use. If an APU is a required power source, the certificate holder must account for its fuel consumption during the appropriate phases of flight.

[Doc. No. FAA-2002-6717, 72 FR 1882, Jan. 16, 2007, as amended by Amdt. 121-348, 75 FR 12121, Mar. 15, 2010]

## § 121.647 Factors for computing fuel required.

Each person computing fuel required for the purposes of this subpart shall consider the following:

- (a) Wind and other weather conditions forecast.
  - (b) Anticipated traffic delays.
- (c) One instrument approach and possible missed approach at destination.
- (d) Any other conditions that may delay landing of the aircraft.

For the purposes of this section, required fuel is in addition to unusable fuel.

## § 121.649 Takeoff and landing weather minimums: VFR: Domestic operations

- (a) Except as provided in paragraph (b) of this section, regardless of any clearance from ATC, no pilot may takeoff or land an airplane under VFR when the reported ceiling or visibility is less than the following:
- (1) For day operations—1,000-foot ceiling and one-mile visibility.
- (2) For night operations—1,000-foot ceiling and two-mile visibility.
- (b) Where a local surface restriction to visibility exists (e.g., smoke, dust, blowing snow or sand) the visibility for day and night operations may be reduced to ½ mile, if all turns after take-off and prior to landing, and all flight beyond one mile from the airport boundary can be accomplished above or outside the area of local surface visibility restriction.
- (c) The weather minimums in this section do not apply to the VFR operation of fixed-wing aircraft at any of the locations where the special weather minimums of §91.157 of this chapter are not applicable (See part 91, appendix D, section 3 of this chapter). The basic

VFR weather minimums of \$91.155 of this chapter apply at those locations.

[Doc. No. 6258, 29 FR 19222, Dec. 31, 1964 as amended by Amdt. 121–39, 33 FR 4097, Mar. 2, 1968; Amdt. 121–206, 54 FR 34331, Aug. 18, 1989; Amdt. 121–226, 56 FR 65663, Dec. 17, 1991]

## § 121.651 Takeoff and landing weather minimums: IFR: All certificate holders.

- (a) Notwithstanding any clearance from ATC, no pilot may begin a takeoff in an airplane under IFR when the weather conditions reported by the U.S. National Weather Service, a source approved by that Service, or a source approved by the Administrator, are less than those specified in—
- (1) The certificate holder's operations specifications: or
- (2) Parts 91 and 97 of this chapter, if the certificate holder's operations specifications do not specify takeoff minimums for the airport.
- (b) Except as provided in paragraph (d) of this section, no pilot may continue an approach past the final approach fix, or where a final approach fix is not used, begin the final approach segment of an instrument approach procedure—
- (1) At any airport, unless the U.S. National Weather Service, a source approved by that Service, or a source approved by the Administrator, issues a weather report for that airport; and
- (2) At airports within the United States and its territories or at U.S. military airports, unless the latest weather report for that airport issued by the U.S. National Weather Service, a source approved by that Service, or a source approved by the Administrator, reports the visibility to be equal to or more than the visibility minimums prescribed for that procedure. For the purpose of this section, the term "U.S. military airports" means airports in foreign countries where flight operations are under the control of U.S. military authority.
- (c) If a pilot has begun the final approach segment of an instrument approach procedure in accordance with paragraph (b) of this section, and after that receives a later weather report indicating below-minimum conditions, the pilot may continue the approach to DA/DH or MDA. Upon reaching DA/DH